

Amendments to the Claims:

This listing of claims replaces all prior versions and listings of claims in the application:

Listing of Claims:

1. (Cancel)
2. (Currently Amended) The method of claim [1] 9, wherein generating a simulated output signal comprises filtering the signal-to-be-corrected.
3. (Currently Amended) The method of claim [1] 4, further comprising temporarily storing the corrected output signal for use in a subsequent iteration step.
4. (Currently Amended) A [The] method [of claim 1,] for reducing the crest factor of a multi-carrier signal, the method comprising:
  - (a) evaluating an inverse Fourier transform of the multi-carrier signal, thereby generating a transformed multi-carrier signal;
  - (b) defining a signal-to-be-corrected to be the transformed multi-carrier signal;
  - (c) [wherein] generating a simulated output signal [comprises] by simulating an effect of a downstream filtering-and-interpolating system on the corrected output signal;
  - (d) estimating a signal maximum of the simulated output signal;
  - (e) deriving a first correction variable on the basis of the estimate;
  - (f) correcting the signal-to-be-corrected using at least the first correction variable, thereby generating a corrected output signal having a reduced crest factor;

(g) defining the corrected output signal to be the signal-to-be-corrected; and

(h) iteratively repeating steps (c) through (g) until the occurrence of a condition selected from the group consisting of causing the corrected output signal to have a crest factor below a predetermined threshold, and performing a predetermined number of iterations.

**5. (Original)** The method of claim 4,

wherein correcting the signal-to-be-corrected comprises subtracting therefrom a correction signal formed by multiplying the first correction variable by a normalized impulse, thereby generating the corrected output signal;

**6. (Original)** The method of claim 5, further comprising temporarily storing the corrected output signal.

**7. (Original)** The method of claim 4, further comprising:

deriving a second correction variable from the estimate in the same iteration step in which the first correction variable is derived,

subtracting, from the signal-to-be-corrected, a value derived from the first and second correction variables, thereby generating the corrected output signal.

**8 (Original)** The method of claim 7, further comprising temporarily storing the corrected output signal.

**9. (Currently Amended)** [The] A method [of claim 1,] for reducing the crest factor of a multi-carrier signal, the method comprising:

(a) evaluating an inverse Fourier transform of the multi-carrier signal, thereby generating a transformed multi-carrier signal;

- (b) defining a signal-to-be-corrected to be the transformed multi-carrier signal;
  - (c) generating a simulated output signal;
  - (d) estimating a signal maximum of the simulated output signal;
  - (e) deriving a first correction variable on the basis of the estimate;
  - (f) correcting the signal-to-be-corrected using at least the first correction variable,  
thereby generating a corrected output signal having a reduced crest factor;
  - (g) defining the corrected output signal to be the signal-to-be-corrected; and
  - (h) iteratively repeating steps (c) through (g) until the occurrence of a condition  
selected from the group consisting of causing the corrected output signal to have a  
crest factor below a predetermined threshold, and performing a predetermined  
number of iterations;
- the method further comprising reducing a bit width of the transformed multi-carrier signal.

**10. (Original)** The method of claim 4, wherein the simulated signal comprises a plurality of sample values and deriving the correction variable comprises using a subset of the sample values.

**11. (Currently Amended)** ~~[The]~~ A method ~~[of claim 1,]~~ for reducing the crest factor of a multi-carrier signal, the method comprising:

- (a) evaluating an inverse Fourier transform of the multi-carrier signal, thereby  
generating a transformed multi-carrier signal;
- (b) defining a signal-to-be-corrected to be the transformed multi-carrier signal;

- (c) generating a simulated output signal;
- (d) estimating a signal maximum of the simulated output signal;
- (e) deriving a first correction variable [wherein deriving a correction variable comprises]  
by identifying a particular sample point at which the estimate occurs;
- (f) correcting the signal-to-be-corrected using at least the first correction variable,  
thereby generating a corrected output signal having a reduced crest factor;
- (g) defining the corrected output signal to be the signal-to-be-corrected; and
- (h) iteratively repeating steps (c) through (g) until the occurrence of a condition  
selected from the group consisting of causing the corrected output signal to have a  
crest factor below a predetermined threshold, and performing a predetermined  
number of iterations.

**12. (Original)** The method of claim 4, wherein simulating an effect of a filtering-and-interpolating system comprises convolving a shortened impulse response of a filter and a reduced impulse response of an interpolator with the signal-to-be-corrected.

**13. (Original)** The method of claim 12, further comprising:

selecting the shortened impulse response to be the first 20% of the sample values of the impulse response of the filter; and

selecting the reduced impulse response to be the central 60% of the sample values of the impulse response of the interpolator.

**14. (Currently Amended)** The method of claim [1] 4, further comprising passing the corrected output signal through a D/A converter.

**15. (Currently Amended)** [The] A method [of claim 1], for reducing the crest factor of a multi-carrier signal, the method comprising:

- (a) evaluating an inverse Fourier transform of the multi-carrier signal, thereby generating a transformed multi-carrier signal;
- (b) defining a signal-to-be-corrected to be the transformed multi-carrier signal;
- (c) generating a simulated output signal by [wherein generating a simulating output signal comprises] simulating one of
  - a high-pass filter followed by a low-pass filter, and
  - a fourth order IIR high pass filter and an FIR interpolation filter
- (d) estimating a signal maximum of the simulated output signal;
- (e) deriving a first correction variable on the basis of the estimate;
- (f) correcting the signal-to-be-corrected using at least the first correction variable, thereby generating a corrected output signal having a reduced crest factor;
- (g) defining the corrected output signal to be the signal-to-be-corrected; and
- (h) iteratively repeating steps (c) through (g) until the occurrence of a condition selected from the group consisting of causing the corrected output signal to have a crest factor below a predetermined threshold, and performing a predetermined number of iterations.

**16. (Cancel)**

**17. (Currently Amended)** The method of claim [1] 4, wherein the multi-carrier signal is selected from the group consisting of a DMT signal and an OFDM signal.